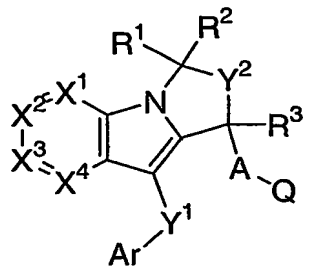
WHAT IS CLAIMED IS:

1. A compound having the formula I



I

and pharmaceutically acceptable salts and hydrates thereof, wherein:
A is selected from C_{1-3}alkyl optionally substituted with one to four halogen atoms, $O(CH_2)_{1-2}$, and $S(CH_2)_{1-2}$;

Ar is aryl or heteroaryl each optionally substituted with one to four groups independently selected from Rg;

Q is selected from:

(1) COOH,
(2) $CONR^aR^b$,
(3) $C(O)NHSO_2R^c$,
(4) SO_2NHR^a,
(5) SO_3H,
(6) PO_3H_2, and
(7) tetrazolyl;

one of X^1, X^2, X^3 or X^4 is nitrogen and the others are independently selected from CH and C-Rg;

Y^1 is selected from $-(CR^dR^e)_a-X-(CR^dR^e)_b-$, phenylene, C_{3-6}cycloalkylidene and C_{3-6}cycloalkylene, wherein a and b are integers 0-1 such that the sum of a and b equals 0, 1 or 2, and X is a bond, O, S, NR^a, C(O), $CH(OR^a)$, OC(O), C(O)O, $C(O)NR^a$, $OC(O)NR^a$, $NR^aC(O)$, $CR^d=CR^e$ or C≡C;

Y^2 is selected from $(CR^dR^e)_m$ and $CR^d=CR^e$;

R^1 is selected from H, CN, OR^a, $S(O)_nC_{1-6}$alkyl and C_{1-6}alkyl optionally substituted with one to six groups independently selected from halogen, OR^a and $S(O)_nC_{1-6}$alkyl;
R^2 is selected from H and C_{1-6}alkyl optionally substituted with one to six halogen; or
R^1 and R^2 together represent an oxo; or
R^1 and R^2 taken together form a 3- or 4- membered ring containing 0 or 1 heteroatom selected from NR^f, S, and O optionally substituted with one or two groups selected from F, CF_3 and CH_3;
R^3 is selected from H and C_{1-6}alkyl optionally substituted with one to six groups independently selected from OR^a and halogen;
R^a and R^b are independently selected from H, C_{1-10}alkyl, C_{2-10}alkenyl, C_{2-10}alkynyl, Cy and Cy C_{1-10}alkyl, wherein said alkyl, alkenyl, alkynyl and Cy are optionally substituted with one to six substituents independently selected from halogen, amino, carboxy, C_{1-4}alkyl, C_{1-4}alkoxy, aryl, heteroaryl, aryl C_{1-4}alkyl, hydroxy, CF_3, $OC(O)C_{1-4}$alkyl, $OC(O)NR^iR^j$, and aryloxy; or
R^a and R^b together with the atom(s) to which they are attached form a heterocyclic ring of 4 to 7 members containing 0-2 additional heteroatoms independently selected from oxygen, sulfur and N-R^f;
R^c is selected from C_{1-6}alkyl optionally substituted with one to six halogen, aryl and heteroaryl, wherein said aryl and heteroaryl are optionally substituted with one to three groups selected from halogen, OC_{1-6}alkyl, O-haloC_{1-6}alkyl, C_{1-6}alkyl and haloC_{1-6}alkyl;
R^d and R^e are independently H, halogen, aryl, heteroaryl, C_{1-6}alkyl or haloC_{1-6}alkyl;
R^f is selected from H, C_{1-6}alkyl, haloC_{1-6}alkyl, Cy, $C(O)C_{1-6}$alkyl, C(O)haloC_{1-6} alkyl, and C(O)-Cy;
Rg is selected from

(1) halogen,
(2) CN,
(3) C_{1-6}alkyl optionally substituted with one to eight groups independently selected from aryl, heteroaryl, halogen, NR^aR^b, $C(O)R^a$, $C(OR^a)R^aR^b$, SR^a and OR^a, wherein aryl, heteroaryl and alkyl are each optionally substituted with one to six groups independently selected from halogen, CF_3, and COOH,
(4) C_{2-6}alkenyl optionally substituted with one to six groups independently selected from halogen and OR^a,
(5) Cy
(6) $C(O)R^a$,

(7) $C(O)OR^a$,
(8) $CONR^aR^b$,
(9) $OCONR^aR^b$,
(10) OC_{1-6}alkyl, wherein alkyl is optionally substituted with one to six substituents selected from halogen, aryl, heteroaryl, OH and $OC(O)R^a$,
(11) O-Cy,
(12) $S(O)_nC_{1-6}$alkyl, wherein alkyl is optionally substituted with one to six substituents selected from halogen, aryl, heteroaryl, OH, and $OC(O)R^a$,
(13) $S(O)_n$-Cy,
(14) $-NR^aS(O)_nR^b$,
(15) $-NR^aR^b$,
(16) $-NR^aC(O)R^b$,
(17) $-NR^aC(O)OR^b$,
(18) $-NR^aC(O)NR^aR^b$,
(19) $S(O)_nNR^aR^b$,
(20) NO_2,
(21) C_{5-8}cycloalkenyl,

wherein Cy is optionally substituted with one to eight groups independently selected from halogen, $C(O)R^a$, OR^a, C_{1-3}alkyl, aryl, heteroaryl and CF_3;

R^i and R^j are independently selected from hydrogen, C_{1-10}alkyl, Cy and Cy-C_{1-10}alkyl; or R^i and R^j together with the nitrogen atom to which they are attached form a ring of 5 to 7 members containing 0-2 additional heteroatoms independently selected from oxygen, sulfur and N-R^f;

Cy is selected from heterocyclyl, aryl, and heteroaryl;

m is 1, 2 or 3; and

n is 0, 1 or 2.

2. A compound of Claim 1 wherein A-Q is CH_2CO_2H.

3. A compound of Claim 1 wherein Ar is naphthyl or optionally substituted phenyl wherein said substituents are 1 or 2 groups independently selected from Rg.

4. A compound of Claim 1 wherein Y^1 is selected from C(O) and S.

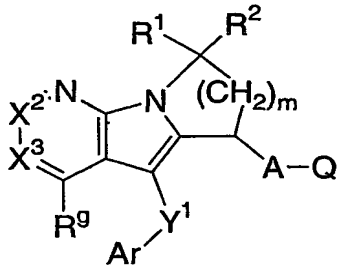
5. A compound of Claim 1 wherein one of X^1, X^2 and X^3 is nitrogen and the others are independently CH or CRg, and X^4 is CRg.

6. A compound of Claim 1 wherein one of X^1, X^2 and X^3 is nitrogen and the others are CH, and X^4 is C-$S(O)_n$-C_{1-6}alkyl or C-C_{1-6}alkyl optionally substituted with OR^a.

7. A compound of Claim 1 wherein R^1, R^2 and R^3 are each hydrogen.

8. A compound of Claim 1 wherein Y^2 is selected from CH_2 and CH_2CH_2.

9. A compound of Claim 1 represented by the formula Ia:



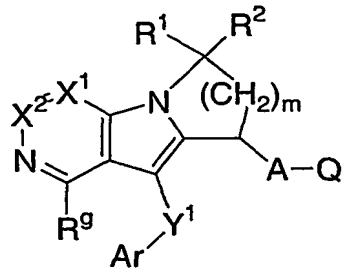
Ia

wherein X^2 and X^3 are independently CH or C-Rg, A, Ar, Q, Y^1, R^1, R^2, m and Rg are as defined in Claim 1.

10. A compound of Claim 9 wherein X^2 and X^3 are each CH, R^1 and R^2 are each H, and A-Q is CH_2CO_2H.

11. A compound of Claim 9 wherein Y^1-Ar is S-phenyl optionally substituted with 1 or 2 groups independently selected from halogen, C_{1-6} alkyl and trifluoromethyl.

12. A compound of Claim 1 represented by the formula Ib:



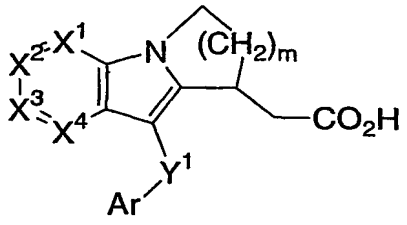
Ib

wherein X^1 and X^2 are independently CH or C-Rg, A, Ar, Q, Y^1, R^1, R^2, m and Rg are as defined in Claim 1.

13. A compound of Claim 12 wherein X^1 and X^2 are each CH, R^1 and R^2 are each H, and A-Q is CH_2CO_2H.

14. A compound of Claim 13 wherein Y^1-Ar is S-phenyl optionally substituted with 1 or 2 groups independently selected from halogen, C_{1-6} alkyl and trifluoromethyl.

15. A compound of Claim 1 represented by the formula Ic:



Ic

wherein one of X^1, X^2 and X^3 is N and the others are each CH, X^4 is CRg, m is 1 or 2, and Ar, Y^1 and m are as defined in Claim 1.

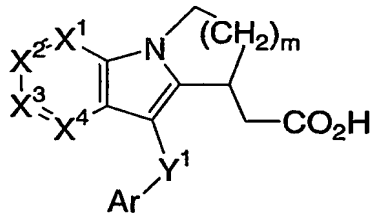
16. A compound of Claim 15 wherein Ar is phenyl optionally substituted with 1 or 2 groups independently selected from halogen, C_{1-3}alkyl and trifluoromethyl.

17. A compound of Claim 15 wherein Y^1 is S or C(O).

18. A compound of Claim 15 wherein X^4 is selected from C-$S(O)_n$-C_{1-6}alkyl and C-C_{1-6}alkyl optionally substituted with OR^a.

19. A compound of Claim 15 wherein Y^1-Ar is S-phenyl optionally substituted with 1 or 2 groups independently selected from halogen, C_{1-6}alkyl and trifluoromethyl; X^1 and X^2 are each CH, X^3 is N, m is 1 or 2, and X^4 is C-SO_2C_{1-6}alkyl or C_{1-6}alkyl.

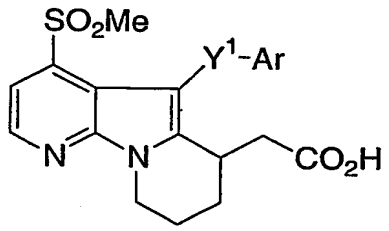
20. A compound of Claim 1 selected from:



X1	X2	X3	X4	Ar	Y1	m
N	CH	CH	C(SO_2CH_3)	4-Cl-Ph	S	2
N	CH	CH	C(SCH_3)	4-Cl-Ph	S	2
N	CH	CH	C(SO_2CH_3)	3,4-diCl-Ph	S	2
N	CH	CH	C(SO_2CH_3)	4-Cl-Ph	C(O)	2
N	CH	CH	C(SO_2CH_3)	4-Br-Ph	S	2
CH	CH	N	C(SO_2CH_3)	3,4-diCl-Ph	S	1
CH	CH	N	C(SO_2CH_3)	3,4-diCl-Ph	S	2
N	CH	CH	C(SO_2CH_3)	4-CF_3-Ph	S	2
N	CH	CH	C(SO_2CH_3)	2-Cl-4-F-Ph	S	2
N	CH	CH	C(SO_2CH_3)	2-naphthyl	S	2
N	CH	CH	C(SO_2CH_3)	2,3-diCl-Ph	S	2
N	CH	CH	C(SO_2CH_3)	4-CH_3-Ph	S	2
N	CH	CH	C(SO_2CH_3)	Ph	S	2
N	CH	CH	C(SO_2CH_3)	2,4-diCl-Ph	S	2
CH	N	CH	C(SO_2CH_3)	4-Cl-Ph	S	2

X1	X2	X3	X4	Ar	Y1	m
CH	CH	N	$C(SO_2CH_3)$	4-Cl-Ph	S	2
N	$C(CH_3)$	CH	$C(SO_2CH_3)$	4-Cl-Ph	S	2
N	CH	$C(CH_3)$	$C(SO_2CH_3)$	4-Cl-Ph	S	2
CH	$C(CH_3)$	N	$C(SO_2CH_3)$	4-Cl-Ph	S	2
$C(CH_3)$	CH	N	$C(SO_2CH_3)$	4-Cl-Ph	S	2
N	CH	CH	$C(CH(CH_3)_2)$	4-F-Ph	S	2
N	CH	CH	$C(CH(CH_3)_2)$	4-Cl-Ph	S	2
N	CH	CH	$C(CH(CH_3)_2)$	2,4-diCl-Ph	S	2
N	CH	CH	$C(CH(CH_3)_2)$	4-Br-Ph	S	2
N	CH	CH	$C(CH(CH_3)_2)$	2-Cl-4-F-Ph	S	2
N	CH	CH	$C(CH(CH_3)_2)$	3,4-diCl-Ph	S	2
CH	CH	N	$C(CH(CH_3)_2)$	4-F-Ph	S	2
CH	CH	N	$C(CH(CH_3)_2)$	4-Cl-Ph	S	2
CH	CH	N	$C(CH(CH_3)_2)$	2,4-diCl-Ph	S	2
CH	CH	N	$C(CH(CH_3)_2)$	4-Br-Ph	S	2
CH	CH	N	$C(CH(CH_3)_2)$	2-Cl-4-F-Ph	S	2
CH	CH	N	$C(CH(CH_3)_2)$	3,4-diCl-Ph	S	2
CH	CH	N	$C(CH(CH_3)_2)$	4-F-Ph	S	1
CH	CH	N	$C(CH(CH_3)_2)$	4-Cl-Ph	S	1
CH	CH	N	$C(CH(CH_3)_2)$	2,4-diCl-Ph	S	1
CH	CH	N	$C(CH(CH_3)_2)$	4-Br-Ph	S	1
CH	CH	N	$C(CH(CH_3)_2)$	2-Cl-4-F-Ph	S	1
CH	CH	N	$C(CH(CH_3)_2)$	3,4-diCl-Ph	S	1
CH	N	CH	$C(CH(CH_3)_2)$	4-F-Ph	S	1
CH	N	CH	$C(CH(CH_3)_2)$	4-Cl-Ph	S	1
CH	N	CH	$C(CH(CH_3)_2)$	2,4-diCl-Ph	S	1
CH	N	CH	$C(CH(CH_3)_2)$	4-Br-Ph	S	1
CH	N	CH	$C(CH(CH_3)_2)$	2-Cl-4-F-Ph	S	1
CH	N	CH	$C(CH(CH_3)_2)$	3,4-diCl-Ph	S	1
CH	N	CH	$C(CH(CH_3)_2)$	4-F-Ph	S	2
CH	N	CH	$C(CH(CH_3)_2)$	4-Cl-Ph	S	2
CH	N	CH	$C(CH(CH_3)_2)$	2,4-diCl-Ph	S	2

X1	X2	X3	X4	Ar	Y1	m
CH	N	CH	C(CH(CH3)2)	4-Br-Ph	S	2
CH	N	CH	C(CH(CH3)2)	2-Cl-4-F-Ph	S	2
CH	N	CH	C(CH(CH3)2)	3,4-diCl-Ph	S	2
N	CH	CH	C(CH(OCH3)(CH2CH3))	4-Cl-Ph	S	2
N	CH	CH	C(CH(OCH3)(CH2CH3))	4-Cl-Ph	S	1
CH	N	CH	C(CH(OCH3)(CH2CH3))	4-Cl-Ph	S	1
CH	N	CH	C(CH(OCH3)(CH2CH3))	4-Cl-Ph	S	2
CH	CH	N	C(CH(OCH3)(CH2CH3))	4-Cl-Ph	S	2
CH	CH	N	C(CH(OCH3)(CH2CH3))	4-Cl-Ph	S	1
N	CH	CH	C(C(CH3)3)	4-Cl-Ph	S	2
N	CH	CH	C(C(CH3)3)	3,4-diCl-Ph	S	2
N	CH	CH	C(C(CH3)3)	4-Br-Ph	S	2
N	CH	CH	C(C(CH3)3)	4-CF3-Ph	S	2
N	CH	CH	C(C(CH3)3)	2-Cl-4-F-Ph	S	2
N	CH	CH	C(C(CH3)3)	2-naphthyl	S	2
N	CH	CH	C(C(CH3)3)	2,3-diCl-Ph	S	2
N	CH	CH	C(C(CH3)3)	4-CH3-Ph	S	2
N	CH	CH	C(C(CH3)3)	Ph	S	2
N	CH	CH	C(C(CH3)3)	2,4-diCl-Ph	S	2



Ar	Y1

Ar	Y1
5-tetrazolyl	S
2-pyrrolyl	S
1,2,4-triazoly-3-yl	S
1,2,3-triazol-4-yl	S
5-imidazolyl	S
4-pyrazolyl	S
5-pyrazolyl	S
(1H,4H)-5-oxo-1,2,4-triazol-3-yl	S
4-isothiazolyl	S
1,2,5-thiadiazol-5-yl	S
1,2,5-oxadiazol-5-yl	S
3-furanyl	S
1,2,3-thiadiazol-4-yl	S
1,2,3-oxadiazol-4-yl	S
4-isoxazolyl	S
3-thienyl	S
4-oxazolyl	S
4-thiazolyl	S
(5H)-2-oxo-5-furanyl	S
(5H)-2-oxo-4-furanyl	S
1,2,4-oxadiazol-5-yl	S
3-pyridyl	S
2-pyrazinyl	S
5-pyrimidinyl	S
2-indolyl	S
2-benzothienyl	S
2-benzofuranyl	S
4-oxo-benzopyran-2-yl	S
2-quinolinyl	S
2-benzimidazolyl	S
2-benzoxazolyl	S
2-benzothiazolyl	S

Ar	Y1
1-benzotriazolyl	CH_2S
thieno[2,3-b]pyridin-2-yl	S

21. A pharmaceutical composition comprising a compound of formula I as defined in any one of Claims 1 to 20, or a pharmaceutically acceptable salt or hydrate thereof, and a pharmaceutically acceptable carrier.

22. The composition of Claim 21 further comprising a second active ingredient selected from an antihistamine, a leukotriene antagonist and a leukotriene biosynthesis inhibitor.

23. A method for the treatment of prostaglandin D2 mediated diseases which comprises administering to a patient in need of such treatment a therapeutically effective amount of a compound of Claim 1.

24. A method for the treatment of nasal congestion which comprises administering to a patient in need of such treatment a therapeutically effective amount of a compound of Claim 1.

25. A method for the treatment of allergic asthma which comprises administering to a patient in need of such treatment a therapeutically effective amount of a compound of Claim 1.

26. A method for the treatment of allergic rhinitis which comprises administering to a patient in need of such treatment a therapeutically effective amount of a compound of Claim 1.

27. A compound of formula I, as defined in any one of Claims 1 to 20, or a pharmaceutically acceptable salt or soluate thereof, for use in medicinal therapy.

28. A compound salt or hydrate of Claim 27 for use in treatment of prostaglandin D2 mediated diseases.

29. Use of a compound of formula I, as defined in any one of Claims 1 to 20, or a pharmaceutically acceptable salt or soluate thereof, in the manufacture of a medicament for treatment of nasal congestion, allergic asthma or allergic rhinitis.

30. A prostaglandin receptor antagonist pharmaceutical composition comprising an acceptable antagonistic amount of a compound of formula I, as defined in any one of Claims 1 to 20, or a pharmaceutically acceptable salt or soluate thereof, in association with a pharmaceutically acceptable carrier therefor.